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     (FILE 'HOME' ENTERED AT 13:32:08 ON 16 APR 2003)

     FILE 'CA' ENTERED AT 13:32:13 ON 16 APR 2003
L1          6399 S COLIFORM
L2        225656 S COLI
L3          1415 S L1 AND L2
L4        779679 S MEDIUM OR MEDIA
L5           261 S L3 AND L4
L6       1799144 S DETECTION OR DETERMINATION
L7           100 S L6 AND L5
L8          1934 S METHYLUMBELLIFERYL
L9            15 S L7 AND L8

     FILE 'WPIDS' ENTERED AT 13:49:02 ON 16 APR 2003
L10           33 S L3 AND L4 AND L6
L11         1023 S L8 OR FLURO?
L12            2 S L10 AND L11

     FILE 'USPATFULL' ENTERED AT 13:52:15 ON 16 APR 2003
L13           55 S L3 AND L4 AND L6 AND L8
L14         1145 S INDOYL OR INDOXYL
L15           25 S L14 AND L13

=> log hold
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              60.42     151.12

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                               0.00     -10.54

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:56:05 ON 16 APR 2003
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L9 ANSWER 14 OF 15 CA COPYRIGHT 2003 ACS
AN 112:204339 CA
TI A combined chromogenic-fluorogenic **medium** for the simultaneous **detection** of total **coliforms** and Escherichia **coli** in water
AU Manafi, Mohammed; Kneifel, Wolfgang
CS Hyg.-Inst., Univ. Wien, Vienna, A-1095, Austria
SO Zentralblatt fuer Hygiene und Umweltmedizin (1989), 189(3), 225-34
CODEN: ZHUMEO; ISSN: 0934-8859
DT Journal
LA German
AB A comparison was made with different chromogenic and fluorogenic substrates, i.e., 4-**methylumbelliferyl**-.beta.-D-glucuronide (MUG), 4-nitrophenyl-.beta.-glucuronide (PNPG), 4-**methylumbelliferyl**-.beta.-galactopyranoside (MUGA), 2-nitrophenyl-.beta.-galactopyranoside (ONPG), 5-bromo-4-chloro-3-indoyl-.beta.-D-galactopyranoside (X-GAL), for the rapid and simultaneous **detection** of total **coliforms** with Escherichia **coli** in water samples, based on 2 commercially available culture-**media**. The combination of the chromogenic compd. X-GAL (for detecting **coliforms**) and the fluorogenic compd. MUG (For detecting E. **coli**) incorporated either into ECD agar or into lauryl sulfate broth was most useful. The optimum concn. of the X-GAL/MUG supplement was 50 - 70 .mu.g/mL for solid **medium** (EMX agar) and 60 - 70 .mu.g/mL for the fluid **medium** (LMX broth). As a result of the examn. of 244 Enterobacteriaceae strains isolated from water samples and clin. material, it was shown that the use of EMX agar (LMX broth) had several advantages over conventional methods. A routine method for the anal. of water samples was proposed involving the EMX agar and the LMX broth.

glucuronide (MUG) = E.Coli

galactopyranoside (MUGA) = coliform

possible 102

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L9 ANSWER 5 OF 15 CA COPYRIGHT 2003 ACS
AN 132:47249 CA
TI A test sheet for detecting **Coliform** organisms
IN Misawa, Masahiro
PA San Kagaku K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000000100	A2	20000107	JP 1998-183343	19980615
PRAI	JP 1998-183343		19980615		

AB A convenient test sheet is provided for accurately detecting **Coliform** organisms in foods. The base material (e.g., filter paper) of test sheet is soaked with a **detection** liq. prepd. by adding 5-bromo-4-chloro-3-indolyl-.beta.-galactopyranoside as a reaction substrate to bouillon culture **medium** contg. culture reagents. Escherichia **coli** is specifically detected by further including 4-**methylumbelliferyl**-.beta.-D-glucuronide as a reaction substrate. **Coliform** organisms including Escherichia **coli**, Citrobacter freund, Enterobacter aerogenes, Klebsiella pneumonia exhibited pos. blue color on this test sheet after culturing for 24 h due to the hydrolysis of 5-bromo-4-chloro-3-indolyl-.beta.-galactopyranoside by .beta.-galactosidase, while other bacteria including Salmonella typhimurium, Proteus, Pseudomonas stayed neg. Upon UV irradn., only Escherichia **coli** showed light blue fluorescence due to the hydrolysis of 4-**methylumbelliferyl**-.beta.-D-glucuronide by .beta.-D-glucuronidase. The test results obtained by this method with foods, water samples, and cooking utensils exhibited a good correlation with the results obtained by the conventional methods.

IC ICM C12Q001-04
ICS C12Q001-04; C12R001-19
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 10
ST test sheet **Coliform** microorganism Escherichia **coli**
IT Culture **media**
(bouillon; test sheet for detecting **Coliform** organisms)
IT Citrobacter freundii
Coliform bacteria
Cooking utensils
Enterobacter aerogenes
Escherichia **coli**
Filter paper
Food
Klebsiella pneumoniae
Proteus (bacterium)
Pseudomonas
Salmonella typhimurium
(test sheet for detecting **Coliform** organisms)
IT 7732-18-5, Water, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(test sheet for detecting **Coliform** organisms)
IT 9001-45-0, Glucuronidase, .beta.- 9031-11-2, .beta.-Galactosidase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(test sheet for detecting **Coliform** organisms)
IT 6160-80-1, 4-**Methylumbelliferyl**-.beta.-D-glucuronide
7240-90-6, 5-Bromo-4-chloro-3-indolyl-.beta.-D-galactoside
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(test sheet for detecting **Coliform** organisms)

L9 ANSWER 4 OF 15 CA COPYRIGHT 2003 ACS
AN 132:250352 CA
TI A rapid method for detecting **coliform** bacteria in food using .beta.-galactosidase as an index
IN Yamada, Shoichi; Ohashi, Eiji
PA Nippon Suisan Kaisha, Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000093195	A2	20000404	JP 1998-270370	19980924
PRAI JP 1998-270370		19980924		

AB A rapid and accurate method is described for detecting the presence of **coliform** bacteria in a food material or measuring their no. according to the necessity using .beta.-galactosidase as an index. The .beta.-galactosidase activity is measured upon culturing a test sample or a test liq. contg. a fixed amt. of the test sample so as to increase the prodn. amt. of .beta.-galactosidase, an enzyme specific to **coliform** bacteria. In order to increase the prodn. amt. of .beta.-galactosidase, adenosine 3',5'-cyclic phosphate(c-AMP) and/or hexokinase for removing glucose and/or isopropyl-.beta.-D-thiogalactopyranoside (IPTG) are added to a culture **medium**. Preferably, a sensitive fluorescent substrate for .beta.-galactosidase (preferably, 4-**methylumbelliferyl**-.beta.-D-galactoside) is also added to the **medium**. Various **coliform** bacteria (e.g., Escherichia **coli**, Klebsiella pneumoniae) were accurately detected and measured by fluorometry using this method within 8 h.

IC ICM C12Q001-10
ICS C12Q001-34; C12Q001-48; C12Q001-10; C12R001-19; C12R001-22
CC 17-1 (Food and Feed Chemistry)
Section cross-reference(s): 10
ST **coliform** bacteria **detection** beta galactosidase fluorometry
IT Budvicia aquatica
Citrobacter amalonaticus
Citrobacter freundii
Citrobacter koseri
Coliform bacteria
Culture **media**
Enterobacter aerogenes
Enterobacter gergoviae
Enterobacter intermedius
Enterobacter sakazakii
Escherichia **coli**
Escherichia vulneris
Ewingella americana
Fluorescent substances
Fluorometry
Food analysis
Klebsiella ornithinolytica
Klebsiella oxytoca
Klebsiella pneumoniae
Klebsiella terrigena
Leclercia adecarboxylata
(rapid method for detecting **coliform** bacteria using .beta.-galactosidase as index)
IT 9031-11-2, .beta.-Galactosidase
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)

(rapid method for detecting **coliform** bacteria using .beta.-galactosidase as index)

IT 6160-78-7, 4-**Methylumbelliferyl**-.beta.-D-galactoside
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(rapid method for detecting **coliform** bacteria using .beta.-galactosidase as index)

IT 60-92-4, c-AMP 367-93-1, IPTG 9001-51-8, Hexokinase
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(rapid method for detecting **coliform** bacteria using .beta.-galactosidase as index)

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